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<110> CHUGAI SEIYAKU KABUSHIKI KAISHA

<120> Ameliorative agent for low vasopressin concentration

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<150> JP 11-189322

<151> 1999-07-02

<160> 75

<170> PatentIn Ver. 2.0

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<400> 43

ggcttggagc tcctcaga

18

<210> 44

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35 40 45
Asp Leu Lys Gln Asp Gly Ser His Ser Thr Gly Asp Gly Ile Pro Asp
50 55 60
Arg Phe Ser Gly Ser Ser Ser Gly Ala Asp Arg Tyr Leu Ser Ile Ser
65 70 75 80
Asn Ile Gln Pro Glu Asp Glu Ala Met Tyr Ile Cys Gly Val Gly Asp
85 90 95
Thr Ile Lys Glu Gln Phe Val Tyr Val Phe Gly Gly Gly Thr Lys Val
100 105 110
Thr Val Leu Gly Gln Pro
115

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<212> PRT

<213> Mus musculus

<400> 46

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Ser Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Gly Val Gly Asp			
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Thr Ile Lys Glu Gln Phe Val Tyr Val Phe Gly Gly Gly Thr Lys Leu			
	100	105	110
Thr Val Leu Gly			
115			

<210> 48

<211> 118

<212> PRT

<213> Homo sapiens

<400> 48

Gln Leu Val Leu Thr Gln Ser Pro Ser Ala Ser Ala Ser Leu Gly Ala			
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	20	25	30
Ile Glu Trp Tyr Gln Gln Gln Pro Glu Lys Gly Pro Lys Tyr Leu Met			
35	40	45	
Asp Leu Lys Gln Asp Gly Ser His Ser Thr Gly Asp Gly Ile Pro Asp			
50	55	60	
Arg Phe Ser Gly Ser Ser Ser Gly Ala Glu Arg Tyr Leu Thr Ile Ser			
65	70	75	80
Ser Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Gly Val Gly Asp			
	85	90	95
Thr Ile Lys Glu Gln Phe Val Tyr Val Phe Gly Gly Gly Thr Lys Leu			
	100	105	110
Thr Val Leu Gly Gln Pro			

115

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<212> PRT

<213> Homo sapiens

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20 25 30
Ile Glu Trp Tyr Gln Gln Gln Pro Glu Lys Gly Pro Lys Tyr Val Met
35 40 45
Asp Leu Lys Gln Asp Gly Ser His Ser Thr Gly Asp Gly Ile Pro Asp
50 55 60
Arg Phe Ser Gly Ser Ser Ser Gly Ala Glu Arg Tyr Leu Thr Ile Ser
65 70 75 80
Ser Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Gly Val Gly Asp
85 90 95
Thr Ile Lys Glu Gln Phe Val Tyr Val Phe Gly Gly Gly Thr Lys Leu
100 105 110
Thr Val Leu Gly Gln Pro
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<213> Homo sapiens

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20 25 30
Ile Glu Trp Tyr Gln Gln Gln Pro Glu Lys Gly Pro Arg Tyr Leu Met
35 40 45
Asp Leu Lys Gln Asp Gly Ser His Ser Thr Gly Asp Gly Ile Pro Asp
50 55 60
Arg Phe Ser Gly Ser Ser Ser Gly Ala Glu Arg Tyr Leu Thr Ile Ser
65 70 75 80
Ser Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Gly Val Gly Asp
85 90 95
Thr Ile Lys Glu Gln Phe Val Tyr Val Phe Gly Gly Gly Thr Lys Leu
100 105 110
Thr Val Leu Gly Gln Pro
115

<210> 51

<211> 118

<212> PRT

<213> Homo sapiens

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20 25 30

Ile Glu Trp Tyr Gln Gln Gln Pro Glu Lys Gly Pro Arg Tyr Val Met
 35 40 45

Asp Leu Lys Gln Asp Gly Ser His Ser Thr Gly Asp Gly Ile Pro Asp
 50 55 60

Arg Phe Ser Gly Ser Ser Ser Gly Ala Glu Arg Tyr Leu Thr Ile Ser
 65 70 75 80

Ser Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Gly Val Gly Asp
 85 90 95

Thr Ile Lys Glu Gln Phe Val Tyr Val Phe Gly Gly Gly Thr Lys Leu
 100 105 110

Thr Val Leu Gly Gln Pro
 115

<210> 52

<211> 118

<212> PRT

<213> Homo sapiens

<400> 52

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Ser Val Lys Leu Thr Cys Thr Leu Ser Ser Gln His Ser Thr Tyr Thr
 20 25 30

Ile Glu Trp Tyr Gln Gln Gln Pro Glu Lys Gly Pro Lys Tyr Leu Met
 35 40 45

Asp Leu Lys Gln Asp Gly Ser His Ser Thr Gly Asp Gly Ile Pro Asp
 50 55 60

Arg Phe Ser Gly Ser Ser Ser Gly Ala Glu Arg Tyr Leu Thr Ile Ser
 65 70 75 80

Ser Leu Gln Ser Glu Asp Glu Ala Asp Tyr Ile Cys Gly Val Gly Asp
85 90 95
Thr Ile Lys Glu Gln Phe Val Tyr Val Phe Gly Gly Gly Thr Lys Leu
100 105 110
Thr Val Leu Gly Gln Pro
115

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<213> Homo sapiens

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Ser Val Lys Leu Thr Cys Thr Leu Ser Ser Gln His Ser Thr Tyr Thr
20 25 30
Ile Glu Trp Tyr Gln Gln Gln Pro Glu Lys Gly Pro Arg Tyr Leu Met
35 40 45
Asp Leu Lys Gln Asp Gly Ser His Ser Thr Gly Asp Gly Ile Pro Asp
50 55 60
Arg Phe Ser Gly Ser Ser Ser Gly Ala Glu Arg Tyr Leu Thr Ile Ser
65 70 75 80
Ser Leu Gln Ser Glu Asp Glu Ala Asp Tyr Ile Cys Gly Val Gly Asp
85 90 95
Thr Ile Lys Glu Gln Phe Val Tyr Val Phe Gly Gly Gly Thr Lys Leu
100 105 110
Thr Val Leu Gly Gln Pro
115

<210> 54

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<213> Homo sapiens

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Ser Val Lys Leu Thr Cys Thr Leu Ser Ser Gln His Ser Thr Tyr Thr

20 25 30

Ile Glu Trp Tyr Gln Gln Gln Pro Glu Lys Gly Pro Lys Tyr Val Met

35 40 45

Asp Leu Lys Gln Asp Gly Ser His Ser Thr Gly Asp Gly Ile Pro Asp

50 55 60

Arg Phe Ser Gly Ser Ser Ser Gly Ala Glu Arg Tyr Leu Thr Ile Ser

65 70 75 80

Ser Leu Gln Ser Glu Asp Glu Ala Asp Tyr Ile Cys Gly Val Gly Asp

85 90 95

Thr Ile Lys Glu Gln Phe Val Tyr Val Phe Gly Gly Gly Thr Lys Leu

100 105 110

Thr Val Leu Gly Gln Pro

115

<210> 55

<211> 118

<212> PRT

<213> Homo sapiens

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20 25 30
Ile Glu Trp Tyr Gln Gln Gln Pro Glu Lys Gly Pro Arg Tyr Val Met
35 40 45
Asp Leu Lys Gln Asp Gly Ser His Ser Thr Gly Asp Gly Ile Pro Asp
50 55 60
Arg Phe Ser Gly Ser Ser Ser Gly Ala Glu Arg Tyr Leu Thr Ile Ser
65 70 75 80
Ser Leu Gln Ser Glu Asp Glu Ala Asp Tyr Ile Cys Gly Val Gly Asp
85 90 95
Thr Ile Lys Glu Gln Phe Val Tyr Val Phe Gly Gly Gly Thr Lys Leu
100 105 110
Thr Val Leu Gly Gln Pro
115

<210> 56

<211> 118

<212> PRT

<213> Homo sapiens

<400> 56

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20 25 30
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gtc cag tgt gag gtg caa ctg gtg gag tct ggg gga gac tta gtg aag	96
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cct gga ggg tcc ctg aaa ctc tcc tgt gca gcc tct gga ttc act ttc	144
Pro Gly Gly Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe	
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agt agc tat ggc atg tct tgg att cgc cag act cca gac aag agg ctg	192
Ser Ser Tyr Gly Met Ser Trp Ile Arg Gln Thr Pro Asp Lys Arg Leu	
30 35 40 45	
gag tgg gtc gca acc att agt agt ggt ggt agt tac acc tac tat cca	240
Glu Trp Val Ala Thr Ile Ser Ser Gly Gly Ser Tyr Thr Tyr Tyr Pro	
50 55 60	
gac agt gtg aag ggg cga ttc acc atc tcc aga gac aat gcc aag aac	288
Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn	
65 70 75	
acc cta tac ctg caa atg agc agt ctg aag tct gag gac aca gcc atg	336
Thr Leu Tyr Leu Gln Met Ser Ser Leu Lys Ser Glu Asp Thr Ala Met	
80 85 90	
ttt tac tgt gca aga cag act act atg act tac ttt gct tac tgg ggc	384
Phe Tyr Cys Ala Arg Gln Thr Thr Met Thr Tyr Phe Ala Tyr Trp Gly	
95 100 105	
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gtc cag tgt cag gtg cag ctg gtg gag tct ggg gga ggc gtg gtc cag 96
Val Gln Cys Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln
      -1  1          5          10
cct ggg agg tcc ctg aga ctc tcc tgt gca gcc tct gga ttc acc ttc 144
Pro Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
      15          20          25
agt agc tat ggc atg tct tgg gtc cgc cag gct cca ggc aag ggg ctg 192
Ser Ser Tyr Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
      30          35          40          45
gag tgg gtg gca acc att agt agt ggt ggt agt tac acc tac tat cca 240
Glu Trp Val Ala Thr Ile Ser Ser Gly Gly Ser Tyr Thr Tyr Tyr Pro
      50          55          60
gac agt gtg aag ggg cga ttc acc atc tcc aga gac aat tcc aag aac 288
Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn
      65          70          75
acg ctg tat ctg caa atg aac agc ctg aga gct gag gac acg gct gtg 336
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Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val

80

85

90

tat tac tgt gcg aga cag act act atg act tac ttt gct tac tgg ggc 384

Tyr Tyr Cys Ala Arg Gln Thr Thr Met Thr Tyr Phe Ala Tyr Trp Gly

95

100

105

cag gga acc ctg gtc acc gtc tcc tca

411

Gln Gly Thr Leu Val Thr Val Ser Ser

110

115

<210> 59

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<213> Homo sapiens

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Lys Ala Ser Gln Asp Val Asn Thr Ala Val Ala

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5

10

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Pro Tyr Trp Met Gln

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-15

-10

-5

tct ttc tcc caa ctt gtg ctc act cag tca tct tca gcc tct ttc tcc 96

Ser Phe Ser Gln Leu Val Leu Thr Gln Ser Ser Ser Ala Ser Phe Ser

-1 1

5

10

ctg gga gcc tca gca aaa ctc acg tgc acc ttg agt agt cag cac agt 144

Leu Gly Ala Ser Ala Lys Leu Thr Cys Thr Leu Ser Ser Gln His Ser

15

20

25

acg tac acc att gaa tgg tat cag caa cag cca ctc aag cct cct aag 192

Thr	Tyr	Thr	Ile	Glu	Trp	Tyr	Gln	Gln	Gln	Pro	Leu	Lys	Pro	Pro	Lys	
30					35					40					45	
tat	gtg	atg	gat	ctt	aag	caa	gat	gga	agc	cac	agc	aca	ggt	gat	ggg	240
Tyr	Val	Met	Asp	Leu	Lys	Gln	Asp	Gly	Ser	His	Ser	Thr	Gly	Asp	Gly	
				50				55					60			
att	cct	gat	cgc	ttc	tct	gga	tcc	agc	tct	ggt	gct	gat	cgc	tac	ctt	288
Ile	Pro	Asp	Arg	Phe	Ser	Gly	Ser	Ser	Ser	Gly	Ala	Asp	Arg	Tyr	Leu	
				65				70					75			
agc	att	tcc	aac	atc	cag	cca	gaa	gat	gaa	gca	atg	tac	atc	tgt	ggt	336
Ser	Ile	Ser	Asn	Ile	Gln	Pro	Glu	Asp	Glu	Ala	Met	Tyr	Ile	Cys	Gly	
				80				85					90			
gtg	ggt	gat	aca	att	aag	gaa	caa	ttt	gtg	tat	gtt	ttc	ggc	ggt	ggg	384
Val	Gly	Asp	Thr	Ile	Lys	Glu	Gln	Phe	Val	Tyr	Val	Phe	Gly	Gly	Gly	
				95				100					105			
acc	aag	gtc	act	gtc	cta	ggt	cag	ccc								411
Thr	Lys	Val	Thr	Val	Leu	Gly	Gln	Pro								
110								115								

<210> 66

<211> 411

<212> DNA

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<221> mat_peptide

<222> (58).. (411)

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-10

-5

tct ttc tcc cag ctt gtg ctg act caa tcg ccc tct gcc tct gcc tcc 96

Ser Phe Ser Gln Leu Val Leu Thr Gln Ser Pro Ser Ala Ser Ala Ser

-1 1

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ctg gga gcc tcg gtc aag ctc acc tgc acc ttg agt agt cag cac agt 144

Leu Gly Ala Ser Val Lys Leu Thr Cys Thr Leu Ser Ser Gln His Ser

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25

acg tac acc att gaa tgg cat cag cag cag cca gag aag ggc cct cgg 192

Thr Tyr Thr Ile Glu Trp His Gln Gln Gln Pro Glu Lys Gly Pro Arg

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35

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tac ttg atg aaa ctt aag caa gat gga agc cac agc aca ggt gat ggg 240

Tyr Leu Met Lys Leu Lys Gln Asp Gly Ser His Ser Thr Gly Asp Gly

50

55

60

att cct gat cgc ttc tca ggc tcc agc tct ggg gct gag cgc tac ctc 288

Ile Pro Asp Arg Phe Ser Gly Ser Ser Ser Gly Ala Glu Arg Tyr Leu

65

70

75

acc atc tcc agc ctc cag tct gag gat gag gct gac tat tac tgt ggt 336

Thr Ile Ser Ser Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Gly

80

85

90

gtg ggt gat aca att aag gaa caa ttt gtg tac gtg ttc ggc gga ggg 384

Val Gly Asp Thr Ile Lys Glu Gln Phe Val Tyr Val Phe Gly Gly Gly

95

100

105

acc aaa ctg acc gtc cta ggt cag ccc 411

Thr Lys Leu Thr Val Leu Gly Gln Pro

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115

<210> 67

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<400> 67

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-15

-10

-5

tct ttc tcc cag ctt gtg ctg act caa tgc ccc tct gcc tct gcc tcc 96

Ser Phe Ser Gln Leu Val Leu Thr Gln Ser Pro Ser Ala Ser Ala Ser

-1 1

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ctg gga gcc tgc gtc aag ctc acc tgc acc ttg agt agt cag cac agt 144

Leu Gly Ala Ser Val Lys Leu Thr Cys Thr Leu Ser Ser Gln His Ser

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acg tac acc att gaa tgg tat cag cag cag cca gag aag ggc cct aag 192

Thr Tyr Thr Ile Glu Trp Tyr Gln Gln Gln Pro Glu Lys Gly Pro Lys

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tac ctg atg gat ctt aag caa gat gga agc cac agc aca ggt gat ggg 240

atg gcc tgg act cct ctc ttc ttc ttc ttt gtt ctt cat tgc tca ggt 48
Met Ala Trp Thr Pro Leu Phe Phe Phe Phe Val Leu His Cys Ser Gly

-15 -10 -5

tct ttc tcc cag ctt gtg ctg act caa tgc ccc tct gcc tct gcc tcc 96
Ser Phe Ser Gln Leu Val Leu Thr Gln Ser Pro Ser Ala Ser Ala Ser

-1 1 5 10

ctg gga gcc tgc gtc aag ctc acc tgc acc ttg agt agt cag cac agt 144
Leu Gly Ala Ser Val Lys Leu Thr Cys Thr Leu Ser Ser Gln His Ser

15 20 25

acg tac acc att gaa tgg tat cag cag cag cca gag aag ggc cct aag 192
Thr Tyr Thr Ile Glu Trp Tyr Gln Gln Gln Pro Glu Lys Gly Pro Lys

30 35 40 45

tac gtg atg gat ctt aag caa gat gga agc cac agc aca ggt gat ggg 240
Tyr Val Met Asp Leu Lys Gln Asp Gly Ser His Ser Thr Gly Asp Gly

50 55 60

att cct gat cgc ttc tca ggc tcc agc tct ggg gct gag cgc tac ctc 288
Ile Pro Asp Arg Phe Ser Gly Ser Ser Ser Gly Ala Glu Arg Tyr Leu

65 70 75

acc atc tcc agc ctc cag tct gag gat gag gct gac tat tac tgt ggt 336
Thr Ile Ser Ser Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Gly

80 85 90

gtg ggt gat aca att aag gaa caa ttt gtg tac gtg ttc ggc gga ggg 384
Val Gly Asp Thr Ile Lys Glu Gln Phe Val Tyr Val Phe Gly Gly Gly

95 100 105

acc aaa ctg acc gtc cta ggc cag ccc 411
Thr Lys Leu Thr Val Leu Gly Gln Pro

110 115

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 Ser Phe Ser Gln Leu Val Leu Thr Gln Ser Pro Ser Ala Ser Ala Ser
 -1 1 5 10
 ctg gga gcc tgc gtc aag ctc acc tgc acc ttg agt agt cag cac agt 144
 Leu Gly Ala Ser Val Lys Leu Thr Cys Thr Leu Ser Ser Gln His Ser
 15 20 25
 acg tac acc att gaa tgg tat cag cag cag cca gag aag ggc cct agg 192
 Thr Tyr Thr Ile Glu Trp Tyr Gln Gln Gln Pro Glu Lys Gly Pro Arg
 30 35 40 45
 tac ctg atg gat ctt aag caa gat gga agc cac agc aca ggt gat ggg 240
 Tyr Leu Met Asp Leu Lys Gln Asp Gly Ser His Ser Thr Gly Asp Gly
 50 55 60
 att cct gat cgc ttc tca ggc tcc agc tct ggg gct gag cgc tac ctc 288

Ile Pro Asp Arg Phe Ser Gly Ser Ser Ser Gly Ala Glu Arg Tyr Leu

65

70

75

acc atc tcc agc ctc cag tct gag gat gag gct gac tat tac tgt ggt 336

Thr Ile Ser Ser Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Gly

80

85

90

gtg ggt gat aca att aag gaa caa ttt gtg tac gtg ttc ggc gga ggg 384

Val Gly Asp Thr Ile Lys Glu Gln Phe Val Tyr Val Phe Gly Gly Gly

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acc aaa ctg acc gtc cta ggc cag ccc

411

Thr Lys Leu Thr Val Leu Gly Gln Pro

110

115

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-5

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Ser Phe Ser Gln Leu Val Leu Thr Gln Ser Pro Ser Ala Ser Ala Ser	
-1 1 5 10	
ctg gga gcc tcg gtc aag ctc acc tgc acc ttg agt agt cag cac agt	144
Leu Gly Ala Ser Val Lys Leu Thr Cys Thr Leu Ser Ser Gln His Ser	
15 20 25	
acg tac acc att gaa tgg tat cag cag cag cca gag aag ggc cct agg	192
Thr Tyr Thr Ile Glu Trp Tyr Gln Gln Gln Pro Glu Lys Gly Pro Arg	
30 35 40 45	
tac gtg atg gat ctt aag caa gat gga agc cac agc aca ggt gat ggg	240
Tyr Val Met Asp Leu Lys Gln Asp Gly Ser His Ser Thr Gly Asp Gly	
50 55 60	
att cct gat cgc ttc tca ggc tcc agc tct ggg gct gag cgc tac ctc	288
Ile Pro Asp Arg Phe Ser Gly Ser Ser Ser Gly Ala Glu Arg Tyr Leu	
65 70 75	
acc atc tcc agc ctc cag tct gag gat gag gct gac tat tac tgt ggt	336
Thr Ile Ser Ser Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Gly	
80 85 90	
gtg ggt gat aca att aag gaa caa ttt gtg tac gtg ttc ggc gga ggg	384
Val Gly Asp Thr Ile Lys Glu Gln Phe Val Tyr Val Phe Gly Gly Gly	
95 100 105	
acc aaa ctg acc gtc cta ggc cag ccc	411
Thr Lys Leu Thr Val Leu Gly Gln Pro	
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Ser Phe Ser Gln Leu Val Leu Thr Gln Ser Pro Ser Ala Ser Ala Ser
      -1  1          5          10
ctg gga gcc tgc gtc aag ctc acc tgc acc ttg agt agt cag cac agt 144
Leu Gly Ala Ser Val Lys Leu Thr Cys Thr Leu Ser Ser Gln His Ser
      15          20          25
acg tac acc att gaa tgg tat cag cag cag cca gag aag ggc cct aag 192
Thr Tyr Thr Ile Glu Trp Tyr Gln Gln Gln Pro Glu Lys Gly Pro Lys
      30          35          40          45
tac ctg atg gat ctt aag caa gat gga agc cac agc aca ggt gat ggg 240
Tyr Leu Met Asp Leu Lys Gln Asp Gly Ser His Ser Thr Gly Asp Gly
      50          55          60
att cct gat cgc ttc tca ggc tcc agc tct ggg gct gag cgc tac ctc 288
Ile Pro Asp Arg Phe Ser Gly Ser Ser Ser Gly Ala Glu Arg Tyr Leu
      65          70          75
acc atc tcc agc ctc cag tct gag gat gag gct gac tat atc tgt ggt 336
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Thr Ile Ser Ser Leu Gln Ser Glu Asp Glu Ala Asp Tyr Ile Cys Gly
80 85 90
gtg ggt gat aca att aag gaa caa ttt gtg tac gtg ttc ggc gga ggg 384
Val Gly Asp Thr Ile Lys Glu Gln Phe Val Tyr Val Phe Gly Gly Gly
95 100 105
acc aaa ctg acc gtc cta ggc cag ccc 411
Thr Lys Leu Thr Val Leu Gly Gln Pro
110 115

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Ser Phe Ser Gln Leu Val Leu Thr Gln Ser Pro Ser Ala Ser Ala Ser
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Leu Gly Ala Ser Val Lys Leu Thr Cys Thr Leu Ser Ser Gln His Ser	
15 20 25	
acg tac acc att gaa tgg tat cag cag cag cca gag aag ggc cct agg	192
Thr Tyr Thr Ile Glu Trp Tyr Gln Gln Gln Pro Glu Lys Gly Pro Arg	
30 35 40 45	
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Tyr Leu Met Asp Leu Lys Gln Asp Gly Ser His Ser Thr Gly Asp Gly	
50 55 60	
att cct gat cgc ttc tca ggc tcc agc tct ggg gct gag cgc tac ctc	288
Ile Pro Asp Arg Phe Ser Gly Ser Ser Ser Gly Ala Glu Arg Tyr Leu	
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acc atc tcc agc ctc cag tct gag gat gag gct gac tat atc tgt ggt	336
Thr Ile Ser Ser Leu Gln Ser Glu Asp Glu Ala Asp Tyr Ile Cys Gly	
80 85 90	
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Val Gly Asp Thr Ile Lys Glu Gln Phe Val Tyr Val Phe Gly Gly Gly	
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- <210> 73
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Ser Phe Ser Gln Leu Val Leu Thr Gln Ser Pro Ser Ala Ser Ala Ser

-1 1 5 10

ctg gga gcc tgc gtc aag ctc acc tgc acc ttg agt agt cag cac agt 144

Leu Gly Ala Ser Val Lys Leu Thr Cys Thr Leu Ser Ser Gln His Ser

15 20 25

acg tac acc att gaa tgg tat cag cag cag cca gag aag ggc cct aag 192

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tac gtg atg gat ctt aag caa gat gga agc cac agc aca ggt gat ggg 240

Tyr Val Met Asp Leu Lys Gln Asp Gly Ser His Ser Thr Gly Asp Gly

50 55 60

att cct gat cgc ttc tca ggc tcc agc tct ggg gct gag cgc tac ctc 288

Ile Pro Asp Arg Phe Ser Gly Ser Ser Ser Gly Ala Glu Arg Tyr Leu

65 70 75

acc atc tcc agc ctc cag tct gag gat gag gct gac tat atc tgt ggt 336

Thr Ile Ser Ser Leu Gln Ser Glu Asp Glu Ala Asp Tyr Ile Cys Gly

80 85 90

gtg ggt gat aca att aag gaa caa ttt gtg tac gtg ttc ggc gga ggg 384

Val Gly Asp Thr Ile Lys Glu Gln Phe Val Tyr Val Phe Gly Gly Gly

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acc aaa ctg acc gtc cta ggc cag ccc

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Thr Lys Leu Thr Val Leu Gly Gln Pro

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<222> (58).. (411)

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-10

-5

tct ttc tcc cag ctt gtg ctg act caa tcg ccc tct gcc tct gcc tcc 96

Ser Phe Ser Gln Leu Val Leu Thr Gln Ser Pro Ser Ala Ser Ala Ser

-1 1

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ctg gga gcc tcg gtc aag ctc acc tgc acc ttg agt agt cag cac agt 144

Leu Gly Ala Ser Val Lys Leu Thr Cys Thr Leu Ser Ser Gln His Ser

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acg tac acc att gaa tgg tat cag cag cag cca gag aag ggc cct agg 192
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 Tyr Val Met Asp Leu Lys Gln Asp Gly Ser His Ser Thr Gly Asp Gly
 50 55 60
 att cct gat cgc ttc tca ggc tcc agc tct ggg gct gag cgc tac ctc 288
 Ile Pro Asp Arg Phe Ser Gly Ser Ser Ser Gly Ala Glu Arg Tyr Leu
 65 70 75
 acc atc tcc agc ctc cag tct gag gat gag gct gac tat atc tgt ggt 336
 Thr Ile Ser Ser Leu Gln Ser Glu Asp Glu Ala Asp Tyr Ile Cys Gly
 80 85 90
 gtg ggt gat aca att aag gaa caa ttt gtg tac gtg ttc ggc gga ggg 384
 Val Gly Asp Thr Ile Lys Glu Gln Phe Val Tyr Val Phe Gly Gly Gly
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Thr Ala

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